

[SELF SEALING HEAT STAKE ON AN OVERMOLDED PANEL]

Abstract

An automotive door panel assembly is provided, comprising a door trim panel. The door trim panel is comprised of an outer trim panel surface; an inner trim panel surface; and at least one tubular stake. The tubular stake includes outer tubular walls protruding from the inner trim panel surface. The tubular stake including a seal sleeve flow channel connecting the outer trim panel surface to the inner trim panel surface. The panel assembly includes an overmold material applied to the outer trim panel surface. The overmold material fills the seal sleeve flow channel and generates an overmold seal sleeve skin on the outer tubular walls. A door main panel assembly is included having at least one clip hole. The tubular stake is positioned within the at least one clip hole. The overmold seal sleeve skin removably engages the at least one clip hole to form a primary seal between the door trim panel and the door main panel assembly.